

Fisheries and Oceans Canada Pêches et Océans Canada

Eastern Arctic Area P.O. Box 358 Iqaluit, Nunavut X0A 0H0

March 28, 2008

Our file: NU-07-0056

Derek Chubb Vice President, Sustainable Development Baffinland Iron Mines Corporation 1016-120 Adelaide Street West Toronto, Ontario M5H 1T1

Dear Mr. Chubb:

**Subject:** Proposed works or undertakings will not likely result in negative effects to fish habitat if additional protection measures are implemented.

Fisheries and Oceans Canada (DFO) received your proposal concerning the installations of seasonal floating dock structures in Sheardown Lake, "Rail Camp" and Steensby Inlet ("3km Lake" and "10km Lake") and water intake structures in "Rail Camp" and Steensby Inlet ("3km Lake" and "10km Lake") in the Qikiqtani Region of Nunavut. Your proposal also involves detailed geotechnical investigations where both land-based and on-ice drilling will be conducted. To expedite future correspondence or inquiries, please refer to your referral title and file numbers when you contact us.

Referral File No.:

07-HCAA-CA7-00056

Habitat File No.:

NU-07-0056

Referral Title:

Water Intakes and Seasonal Floating Docks, Rail Camp and

Steensby Inlet, Mary River Project

It is our understanding that your proposal consists of:

- Installing seasonal floating dock structures (CanDock or similar varying in size from 5
  metres wide by 6 to 20 metres long) at the following lake locations: Sheardown lake,
  "Rail Camp" and Steensby Inlet (3km Lake and 10km Lake).
  - Securing the temporary floating docks with removable anchors which are to be placed along the length of the dock every 7 metres from both edges.
- Installing seasonal water intake pipes at the following lake locations: "Rail Camp" and Steensby Inlet (3km Lake and 10km Lake)
  - Weighting the water intake pipes during the open water season with temporary anchors placed immediately upstream of fish screen
- On-ice drilling at 25 locations along the potential south (Steensby) rail alignment

as outlined in the following plans:

- Application for Class A Land Use Permit Indian and Northern Affairs Canada, prepared by Derek Chubb(Baffinland Iron Mines Corporation), dated November 15, 2007.
  - Regional Plan, Figure 1, Ref. NB07-00929 prepared by Knight Piesold Consulting, printed November 13, 2007.

- Rail Camp and Steensby Area, Figure 2, Ref. NB07-00929 prepared by Knight Piesold Consulting, printed November 13, 2007.
- Rail Camp Proposed Camp Layout, Figure 3, Ref. NB07-00929 prepared by Knight Piesold Consulting, printed November 13, 2007.
- Steensby Inlet Area Proposed Camp Layout, Figure 4, Ref. NB07-00929 prepared by Knight Piesold Consulting, printed December 7, 2007.
- Letter regarding "Mary River Exploration and Geotechnical Program Temporary Dock and Water Intake Pipes", signed by Derek Chubb (Baffinland Iron Mines Corporation), dated December 7, 2007.
  - Floating Dock Plan and Section, Figure 3, Ref. NB07-00995, prepared by Knight Piesold Consulting, printed December 7, 2007.
- Email regarding Mary River Exploration and Geotechnical Program, prepared by Derek Chubb (Baffinland Iron Mines Corporation), dated January 14, 2008.
- Rail Camp, Figures 1 to 3, Ref. NB08-00026, prepared by Knight Piesold Consulting, dated January 11, 2008.
- Steensby Inlet Camp, Figures 5 to 10, prepared by Knight Piesold Consulting, dated January 11, 2008.
- Water Intake Details, Figure 11, Ref. NB08-00026, prepared by Knight Piesold Consulting, dated January 11, 2008.
- Letter regarding Field Geotechnical Drilling Program, prepared by Derek Chubb (Baffinland Iron Mines Corporation), dated February 19, 2008.
- Tables, Ref. NB08-00146, Revision 1, prepared by Knight Piesold Consulting, dated February 15, 2008.
  - o Table 1 Proposed Winter Drillhole Locations
  - o Table 2 Proposed Winter Water Sources for Each Drillhole
  - Table 3 Proposed Winter Water Sources Summary
- South (Steensby) Rail Alignment Winter site Investigation Plans, Figures 1 to 8, Ref. NB08-00146, prepared by Knight Piesold Consulting, dated February 15, 2008.
- South (Steensby) Rail Alignment Aerial Photographs, Figures 9 to 20, Ref. NB08-00146, prepared by Knight Piesold Consulting, dated February 15, 2008.
- Email regarding Mary River Geotechnical Drilling Program, Prepared by Derek Chubb (Baffinland Iron Mines Corporation), dated March 7, 2008.
  - Rail Alignment Watercourse Crossing Assessment, prepared by North/South Consultants Inc.
- Email regarding Cockburn Lake Drill Location, Prepared by Derek Chubb (Baffinland Iron Mines Corporation), dated March 7, 2008.

If the above plans have changed since the time of submission, the advice in this letter may no longer apply and you should consult with us to determine if further review is needed.

We have concluded that the proposed works and undertakings are adequate to protect fish and fish habitat provided that the work is carried out as described in your plans and the following additional measures are implemented:

- All materials and equipment used for the purpose of site preparation and project completion should be operated and stored in a manner that prevents any deleterious substance (e.g. petroleum products, silt, debris, etc.) from entering the water.
  - Any stockpiled materials should be stored and stabilized above the ordinary high water mark of any water body.
  - Vehicle and equipment re-fuelling and maintenance should be conducted above the ordinary high water mark of any water body.

- Any part of equipment entering the water should be free of fluid leaks and externally cleaned/degreased to prevent any deleterious substance from entering the water.
- Only clean, non-acid generating, non metal leaching material free of fine particulate matter should be placed in the water.
- Sediment and erosion control measures should be implemented prior to work, and maintained during the work phases, including decommissioning and restoration phases, to prevent entry of sediment into the water or the movement of re-suspended sediment.
  - All sediment and control measures should be inspected regularly to ensure that they
    are functioning properly and are maintained and/or upgraded as required to prevent
    entry of sediment into the water.
  - All disturbed areas should be stabilized upon completion of work and restored to a pre-disturbed state or better.
  - Sediment and erosion control measures should be left in place and maintained until all disturbed areas have been stabilized.
- On-ice drilling should not occur in rivers where water exists under ice and where fish are likely to spawn.
  - When drilling on-ice, sludge pans or settling tanks should be used to collect all fine drilling sediments that are produced.
  - All project materials should be removed from the ice prior to spring break-up.
- Water withdrawal volumes should not impact fish or fish habitat.
- The Freshwater Intake End-of-Pipe Fish Screen Guideline (DFO 1995) is to be applied to the
  water intakes. To prevent the entrainment of fish, the mesh size should not exceed 2.54
  mm. To prevent impingement of fish onto the screen, the screen should be designed as per
  the guideline. The intake should not disturb the sediment and the screen should be cleaned
  regularly. The proponent should contact DFO if they do not have access to these guidelines.

By implementing these additional measures and those already outlined in your plans, it is our opinion that the proposed works and undertakings will not likely result in the harmful alteration, disruption or destruction (HADD) of fish habitat, which is prohibited unless authorized by DFO. These are recommendations to ensure that the proposed works will likely not result in a HADD of fish habitat. Therefore a subsection 35(2) Authorization is not necessary.

You could contravene subsection 35(1) of the *Fisheries Act* if a HADD of fish habitat results from any change in your proposed plan or from failure to properly implement these additional measures. Subsection 35(1) states, "*no person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat."* 

This letter of advice does not permit the deposit of deleterious substance (section 36 of the *Fisheries Act*) into waters frequented by fish nor does it release you from the responsibility to obtain any other federal, territorial, or municipal approvals.

We request that you notify us at least 10 working days before starting the work and that a copy of this letter be kept on site while work is in progress. If you have any questions concerning the above, or if my understanding of the proposal is either incorrect, incomplete, or if there are

changes to the proposed works or undertakings, please contact myself directly by telephone at (867) 979-8007, by fax at (867) 979-8039, or by e-mail at Amy.Liu@dfo-mpo.gc.ca.

Yours sincerely,

Amy Liu

Habitat Management Biologist Fisheries and Oceans Canada

Copy: Keith Pelley, Fisheries and Oceans Canada Phyllis Beaulieu, Nunavut Water Board

Charlotte Lamontagne, Indian and Northern Affairs Canada

Jim Rogers, Indian and Northern Affairs Canada